REMARKS/ARGUMENTS

After entry of this amendment, claims 1-2, 5-8, 11-13, and 18-21 will be pending in this application. Claims 1-2, 7-8, 11, and 13 have been amended. New claims 18-21 have been added. Support for the new and amended claims can be found in the specification. No new matter has been added.

The title and specification have been objected to. The title and specification have been appropriately amended.

Claims 1-2, 7-8, 11, and 13 have been objected to. Claims 1-2, 7-8, 11, and 13 have been appropriately amended.

Claims 1-2, 7-8, and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al., United States patent number 6,816,923, in view of Abramson et al., United States patent number 6,499,077, Iizuka et al., United States patent number 5,581,530, and Nguyen et al., United States patent number 5,355,326. Claims 5 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Abramson, Iizuka, Nguyen and Kuronuma et al., United States patent number 6,859,848. Claims 6 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Abramson, Iizuka, Nguyen and "Microsoft Computer Dictionary."

Reconsideration of these rejections and allowance of the pending claims in light of these amendments and remarks is respectfully requested.

Claim 1

Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Abramson, Iizuka, and Nguyen. But this combination of cited references does not show or suggest each and every element of this claim. For example, claim 1, as amended, recites "a plurality of buffers in the memory interface, each of the plurality of buffers sized to store a data burst for a memory access request." The combination of cited references does not show or suggest this feature.

The pending office action cites several passages in Iizuka as showing or suggesting this feature. (See pending office action, page 10, fourth paragraph.)

In these passages, Iizuka shows the operation of buffers in an audio device during record and play modes. (See Iizuka, column 11, lines 5-20.) Iizuka further shows that each buffer is sized to hold a number of samples. Iizuka does not show that a number of samples corresponds to a data burst for a memory access request. Thus, Iizuka does not show that each of the plurality of buffers is sized to store a data burst for a memory access request. The pending office action recognizes that Gray and Abramson do not show or suggest this feature. (See pending office action, page 10, second paragraph.) Nguyen adds nothing to this. Accordingly, the combination of cited references does not show or suggest a plurality of buffers in the memory interface, each of the plurality of buffers sized to store a data burst for a memory access request, as is required by the claim.

Claim 1, as amended, further recites "wherein, for a wrapping memory access request requiring multiple buffers, data required for each of a beginning and an end of the wrapping memory access request are assigned to respective sub-buffers of a single respective buffer by the control logic." The combination of cited references does not show or suggest this feature.

The pending office action cites Figure 8 of Iizuka as showing or suggesting this feature. (See pending office action, page 10, last paragraph.)

In Figure 8, Iizuka shows three buffers, 9-1 to 9-3. (See Iizuka, Figure 8.) These buffers are used as ring buffers. (See Iizuka, column 11, lines 24-26.) In these ring buffers, the last address and the first address are "imaginarily linked together." (*id.*) These buffers are each used individually. (See Iizuka, Figure 8.) That is, each buffer is used alone; the storage of the data does not require multiple buffers. (See Iizuka, Figure 8.) Thus, Iizuka does not show for a wrapping memory access request requiring multiple buffers, data required for each of a beginning and an end of the wrapping memory access request are assigned to respective sub-buffers of a single respective buffer. The pending office action recognizes that Gray and Abramson do not show or suggest this feature. (See pending office action, page 10, second paragraph.) Nguyen adds nothing to this. Accordingly, the combination of cited references does

not show or suggest wherein, for a wrapping memory access request requiring multiple buffers, data required for each of a beginning and an end of the wrapping memory access request are assigned to respective sub-buffers of a single respective buffer by the control logic, as is required by the claim.

Claim 1, as amended, further recites "wherein the control logic records a value of a pointer indicating a first sub-buffer of the single respective buffer storing the end data, such that the control logic is able to return to the indicated first sub-buffer to retrieve the end data from the single respective buffer." The combination of cited references does not show or suggest this feature.

The pending office action cites Nguyen as showing or suggesting this feature. (See pending office action, page 12, second full paragraph.)

Nguyen shows the use of input and output pointers. (See Nguyen, Figure 2.) The input pointer points to the next slot involved in an input operation, while the output pointer points to the next slot involved in an output operation. (See Nguyen, column 6, lines 4-7.) These pointers do not allow control logic to return to the indicated first sub-buffer to retrieve the end data from the single respective buffer. The pending office action recognizes that Gray, Abramson, and Iizuka do not show or suggest this feature. (See pending office action, page 12, first full paragraph.) Accordingly, the combination of cited references does not show or suggest wherein the control logic records a value of a pointer indicating a first sub-buffer of the single respective buffer storing the end data, such that the control logic is able to return to the indicated first sub-buffer to retrieve the end data from the single respective buffer, as is required by the claim.

For at least these reasons, claim 1 should be allowed.

Other claims

Claims 7 and 13 should be allowed for similar reasons as claim 1. The remaining rejected claims depend on one of the above claims and should be allowed for at least the same reasons and the additional limitations they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal notice of allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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